

What is claimed

1. A nozzle assembly for a suction cleaning device, comprising:  
a body having an edge and a bottom wall, said bottom wall including an intake opening and a portion extending at least partially between said edge and said intake opening; and  
5 at least one channel in said portion extending between said edge and said intake opening, said at least one channel having a cross sectional area deceasing in a direction extending from said edge toward said intake opening whereby air drawn through said at least one channel is accelerated as said air approaches said intake opening.
2. The nozzle assembly of claim 1, wherein said at least one channel includes a top wall and a pair of converging sidewalls.
3. The nozzle assembly of claim 1, wherein said channel is a substantially truncated V-shape.
4. The nozzle assembly of claim 1, wherein said at least one channel includes a first end adjacent said edge and a second end adjacent said intake opening.

5. The nozzle assembly of claim 4, wherein said first end has a width  $W_1$  and said second end has a width  $W_2$  where  $W_1 > W_2$ .
6. The nozzle assembly of claim 4, wherein said first end has a depth  $D_1$  and said second end has a depth  $D_2$  where  $D_1 > D_2$ .
7. The nozzle assembly of claim 1, including multiple channels.
8. The nozzle assembly of claim 7, wherein each channel of said multiple channels includes a top wall and a pair of converging sidewalls.
9. The nozzle assembly of claim 7, wherein each channel of said multiple channels is a substantially truncated V-shape.
10. The nozzle assembly of claim 7, wherein each channel of said multiple channels includes a first end adjacent said edge and a second end adjacent said intake opening.
11. The nozzle assembly of claim 10, wherein said first end has a width  $W_1$  and said second end has a width  $W_2$  where  $W_1 > W_2$ .
12. The nozzle assembly of claim 10, wherein said first end has a depth  $D_1$  and said second end has a depth  $D_2$  where  $D_1 > D_2$ .

13. The nozzle assembly of claim 10, wherein said portion has a width  $W_3$  and said first ends of said multiple channels have a total combined width  $W_4$  where  $W_4$  is between about 40% to about 60% of  $W_3$ .

14. The nozzle assembly of claim 13, wherein said second ends of said multiple channels have a total combined width  $W_5$  where  $W_5$  is between about 22% to about 42% of  $W_3$ .

15. A method for increasing cleaning efficiency of a nozzle assembly including an intake opening, comprising:

providing an air inlet channel in the nozzle assembly for delivering air to the intake opening; and

5 accelerating air traveling through said air inlet channel as it approaches said intake opening.

16. The method of claim 15 including reducing the cross sectional area of said air inlet channel as said air inlet channel approaches said intake opening.

17. An upright vacuum cleaner, comprising:

a nozzle assembly having a bottom wall defining an intake opening;

a canister assembly pivotally connected to said nozzle assembly;

a suction generator mounted in one of said nozzle assembly and

5 said canister assembly;

a dirt collection vessel mounted in one of said nozzle assembly and said canister assembly;

said nozzle assembly being characterized by at least one channel in said bottom wall in communication with said intake opening, said at least one  
5 channel having a cross sectional area decreasing in a direction extending toward said intake opening.

18. The upright vacuum cleaner of claim 17 further including a rotary agitator in said intake opening.

19. A power head, comprising:

a nozzle assembly having a bottom wall defining an intake opening;

a rotary agitator carried on said nozzle assembly and extending at least partially across said intake opening ; and

5 at least one channel in said bottom wall in communication with said intake opening, said at least one channel having a cross sectional area decreasing in a direction extending toward said intake opening.

20. A nozzle attachment, comprising:

a nozzle body having a bottom wall defining an intake opening; and

at least one channel in said bottom wall in communication with said intake opening, said at least one channel having a cross sectional area  
5 decreasing in a direction extending toward said intake opening.